

WHAT IS CLAIMED IS:

1. A liquid jet recording head comprising:
 - a recording element substrate which includes a recording liquid discharge port, and includes a
 - 5 discharge energy generation element that generates a discharge energy;
 - a flexible film wiring substrate which includes an opening for exposing the recording element substrate to an outside, and includes a plurality of
 - 10 lead electrodes projecting inward of the opening, the flexible film wiring substrate connected to the recording element substrate so as to apply an electrical signal to the discharge energy generation element;
 - 15 a plurality of electrode pads provided on the recording element substrate, the electrode pads electrically connected to the lead electrodes, respectively so as to electrically connect the recording element substrate to the flexible film
 - 20 wiring substrate; and
 - a dummy lead which is provided inward of the opening to protrude to be shorter than each of the lead electrodes, and which is not electrically connected to each of the electrode pad, the dummy
 - 25 lead provided to be adjacent to at least one lead electrode group comprising of a plurality of lead

electrodes among the plurality of lead electrodes.

2. The liquid jet recording head according to
claim 1, wherein the dummy lead is provided on the
5 flexible film wiring substrate.

3. The liquid jet recording head according to
claim 1, wherein electric connection sections between
the lead electrodes and the electrode pads, and the
10 dummy lead are sealed by a sealing resin so as to
cover the electric connection sections and the dummy
leads.

4. The liquid jet recording head according to
15 claim 1, wherein the dummy lead is provided near each
of both end portions of the lead electrode group in
an arrangement direction.

5. The liquid jet recording head according to
20 claim 1, wherein the dummy lead is arranged at a
pitch equal to a pitch at which the lead electrodes
are arranged.

6. The liquid jet recording head according to
25 claim 1, wherein a plurality of the recording element
substrates are provided in the opening, and the dummy

lead is provided near end portions of the plurality of recording element substrates adjacent to each other.

5 7. The liquid jet recording head according to claim 1, wherein a plurality of the dummy leads are arranged between the adjacent lead electrode groups, thereby preventing a gap larger than a desired gap from being formed between the plurality of lead
10 electrodes.

8. The liquid jet recording head according to claim 1, wherein a gap between each of the lead electrodes and the dummy lead is set to fall within a range of $0.75P \leq P \leq 1.25P$, where P is an arrangement pitch of the plurality of lead electrodes.
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9. The liquid jet recording head according to claim 1, wherein the dummy lead has a larger width than a width of each of the lead electrodes, thereby preventing a gap larger than a predetermined gap from being formed between the plurality of lead electrodes.
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10. The liquid jet recording head according to claim 1, wherein the lead electrodes and the dummy lead are manufactured in a same manufacturing step.
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